Minnesota Office of Continuous Improvement

State of Minnesota, Dept. of Administration
mn.gov/lean

Lean Essentials

Lean is a time-tested method and set of tools for improving performance and results by removing waste and standardizing work within a process. Lean embodies a way of thinking and acting to continually improve services.

7 Wastes (+1)

Waste to eliminate from the process

T	Transportation
I	Inventory
M	Motion
W	Waiting
O	Overproduction
O	Overprocessing
D	Defects
S	Underutilized staff creativity

Poka-Yoke

Mistake proofing

Kaizen Event

A facilitated, rapid improvement event typically conducted over 3-5 days

1	Map current process
2	Identify waste
3	Brainstorm improvements
4	Map future process
5	Complete action plan

Lean Principles

- Customer focus: Define value from the customer's perspective and relentlessly drive out waste.
- Data driven decisions: Verify assumptions with data and make decisions based on analysis.
- Respect: Empower and engage employees to improve products and services.
- Results: Set ambitious goals and measure results.
- Accountability: Follow through on commitments and communicate progress.
- Excellence: strive to be the best, continually improve, experiment, and learn from experience.

WorkOut

Half-day method to help teams identify work unit issues and solutions

1	Define value streams
2	Identify challenges
3	Brainstorm solutions
4	Sort and prioritize

5S

A simple method for creating clean, safe, orderly, high performing work environments

1S	Sort
2S	Set in order
3S	Shine
4S	Standardize
5S	Sustain

5 Whys

Root cause identification tool

1	Identify problem
2	Ask, "What should happen?"
3	Ask, "What did happen?"
4	Ask, "Why?" 5 times
5	Complete action plan

A3

One-page problem solving or project charter tool

Standard Work

How work should be done

1	Define process start and end
2	Determine requirements
3	Define process steps & time
4	Create forms/documents
5	Set quality control checks
6	Train supervisors and staff
7	Validate standard work
8	Make adjustments

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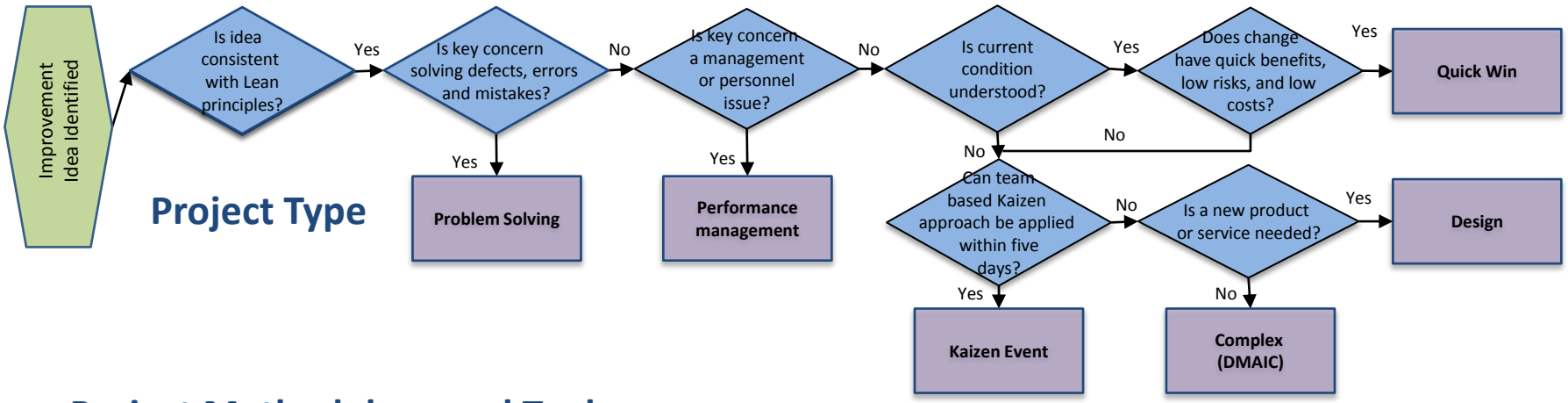

Project Type

Project Methodology and Tools

Plan			Do	Study	Act
Define	Measure	Analyze	Improve		Control
• Project Charter • Team Norms • SIPOC Diagram • Voice of the Customer Techniques • Stakeholder Map • Benchmarking	• Swim Lane Map • Value Stream Map • Spaghetti Map • Process Analysis • Control Chart • Statistics • Cost/Benefit Analysis	• Brainstorming • Cause and Effect Analysis (Fishbone) • 5 Whys • Affinity Diagram • Relations Diagram • Surveys	• Brainstorming • Idea Box • Ranking and Voting • 2 x 2 Table • Decision Matrix • Cost/Benefit Analysis • Impact Wheel • FMEA • Mistake Proofing • Implementation Plan • Performance Measures • Before/After Analysis		• Control Plan • Standard Work • Post-Project Review • Storyboard • Visual Measures